

ABSTRACT

The present invention is an apparatus and method for measuring the content of water in unrefined hydrocarbons through the application of a refractive index comprising a capacitance measuring device and a density measuring device. The capacitance measuring device may be calibrated according to linear data regarding the refractive index of an emulsion of oil and water to provide output. The output of the capacitance device may be used to obtain a refractive index of the emulsion. The density measuring device may be used to measure the density of the emulsion from which the actual density of oil may be obtained. The density oil may then be applied to a linear curve to find the value of the refractive index of the oil and from this measurement the water content of the emulsion may be obtained.